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[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR DETECTING THE PRESENCE OF ANOMALOUS MATERIAL WITHIN TISSUE

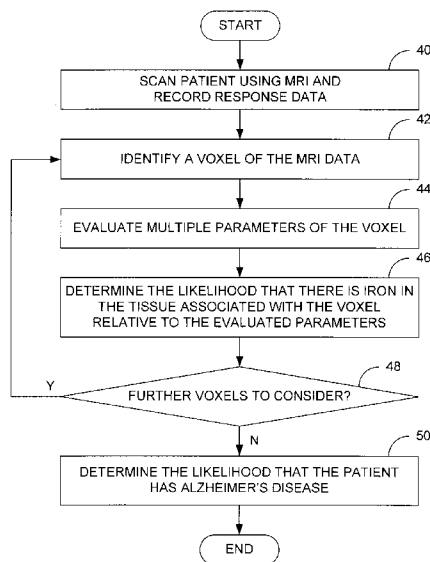


FIG. 4

(57) Abstract: In one embodiment, the presence of anomalous material within tissue is detected by scanning a patient using magnetic resonance imaging (MRI) to obtain MRI data, identifying individual voxels of the MRI data, identifying multiple parameters of each voxel, and determining as to each voxel based upon the identified parameters the likelihood of tissue represented by the voxel containing anomalous material.





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## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/US2012/053916****A. CLASSIFICATION OF SUBJECT MATTER****A61B 5/055(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

A61B 5/05, A61B 5/055, G01R 33/48

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models  
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; keywords: MRI image, brain, iron, voxel

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004-0102692 A1 (JHON FREDERICK SCHENCK et al.) 27 May 2004 See abstract, paragraphs [0019],[0021]-[0025],[0030], claims 1-2,4-6 and figures 1-2.	1-30
A	US 2010-0127704 A1 (MARCEL WARNTJETS) 27 May 2010 See abstract, paragraphs [0055]-[0056], claims 1,3 and figure 6.	1-30
A	WO 2010-051267 A1 (MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESAERCH) 06 May 2010 See abstract, paragraphs [0030]-[0038], claims 1-3 and figure 3.	1-30
A	US 2005-0020904 A1 (HARVEY ELLIS CLINE et al.) 27 January 2005 See abstract, paragraphs [0020],[0024], claims 1,6 and figure 1.	1-30
A	US 2005-0215883 A1 (WILLIAM GREGORY HUNDLEY et al.) 29 September 2005 See paragraphs [0050]-[0053], claims 1-5 and figure 4A.	1-30

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

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**04 MARCH 2013 (04.03.2013)**

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2012/053916**

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